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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,772	12/21/2001	Huayan Wang	1273	4705

23720 7590 04/12/2007
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EXAMINER

CHANKONG, DOHM

ART UNIT	PAPER NUMBER
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2152

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/029,772	Applicant(s) WANG ET AL.	
	Examiner Dohm Chankong	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1> This action is in response to Applicant's remarks, filed 2.5.2007. Claims 1-28 are presented for further examination.

2> This is a final rejection.

Response to Arguments

3> Applicant argues in substance that (1) Critelli teaches away from the claimed invention and (2) there is no motivation to combine Critelli and Cantu. Applicant's arguments have been fully considered but they are not persuasive.

With respect to (1), Applicant argues that Critelli teaches encrypting both the public and private component with the sender's private key. Since, the claimed invention calls for encrypting the private component with the public key of the receiver and the public component with the private key of the sender, Applicant argues that Critelli teaches away from the claimed invention. However, disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. MPEP §2123(II). Rather, the accepted standard for determining whether references "teach away" is if the prior art references "criticize, discredit, or otherwise discourage the solution claimed." Id.

Here, Critelli simply discloses a different embodiment and does not criticize, discredit or discourage the encryption of the private component with the public key of the receiver. Therefore, Critelli does not teach away from Applicant's claimed invention.

With respect to (2), Applicant asserts two reasons why there is no motivation to combine Critelli and Cantu. First, Applicant relies on the argument that Critelli teaches away from the claimed invention which would undermine any combination. This argument was addressed above. Critelli's alternative embodiment does not constitute a teaching away. Second, Applicant argues that Cantu is directed towards "electronic" messages and could not be combined with the shipping and non-shipping information in Critelli. This argument is not persuasive because Cantu clearly teaches that his invention extends beyond mere "electronic" messages but to "marks on paper, such as a bar code" [0101]. Since Critelli teaches using bar codes to encode the shipping and non-shipping information, there is a clear basis for combining Cantu with Critelli.

Further, it would have been obvious to one of ordinary skill in the art to modify Critelli's encryption techniques with Cantu's teaching of a private component comprising a digital signature signed by the sender encrypted by the public key of the receiver [0055-0061]. One of ordinary skill in the art would have been motivated to provide such a combination because Cantu improves Critelli's system because encrypting a message with the recipient's public key "provide(s) the recipient with assurance that the message is indeed intended for the recipient" [0055]. This teaching represents an improvement over Critelli because it provides enhanced security for both the sender and receiver.

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4> Applicant's arguments with respect to claims 10 and 23 concerning the "digital mail identification" is also unpersuasive. According to the claims, the "digital mail identification" encodes "physical identification information." Dependent claims 4 and 5 are directed to "information relating to the physical characteristics of the envelope." These claims were rejected at items 9 and 10 in the non-final rejection, filed 11.14.2006; Critelli teaches the encoding physical information, the data the security envelope was sealed, of the security envelope [Col. 2, lines 35-50 : where shipping information includes encoding "cryptographically secured information that is derived from address field 12 and other information generated or contained in the postal security device that 15 affixed IBI 18 to the mailpiece 11" where the information includes the date that the envelope is mailed]. This interpretation is consistent with Applicant's specification which describes that both the public and private digital mail identification can comprise the data of the mailing [pg. 9 «lines 1-2»].

Therefore, while not expressly stated in the body of the rejection for claims 10 and 23, the limitations for the public digital mail identification and private digital was addressed in the rejection of claims 4 and 5. The public and private digital mail identification of claims 10 and 23 are not distinguished over the information relating to the physical characteristics in claims 4 and 5. As such, claims 10 and 23 are rejected for at least the same reasons set forth for claims 1, 4 and 5. This rejection of claims 10 and 23 does not change the grounds of rejection since the claims are still rejected under Critelli and Cantu.

Claim Rejections - 35 USC § 103

5> The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6> Claims 1-7 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Critelli, US 6,260,029 in view of Cantu et al; U.S Patent Publication No. 2001|0020228 ["Cantu"].

7> As per claim 1, Critelli teaches a security envelope, comprising: a barcode in a two-dimensional symbology located on the security envelope, the barcode encoding (Fig 8, item 38):

a public component (shipping information, postal verification information, Col. 4, lines 10-15; Fig. 1, item 36; Fig 8, item 38), comprising a digital signature signed by the sender encrypted by the private key of the sender (Col. 3, lines 1-5); and

a private component (non-shipping information, advertising material, Col. 3, lines 47-57), comprising a digital signature signed by the sender (Col. 2, lines 60 - Col. 3, lines 5; Col. 3, lines 47-66; Col. 4, lines 1-14).

Critelli does not explicitly teach a private component, encrypted by the public key of the receiver.

In a similar system dealing with encryption, Cantu teaches a public component that comprising a digital signature signed by the sender encrypted by the

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private key of the sender [0055-0061] and a private component comprising a digital signature signed by the sender encrypted by the public key of the receiver [0055-0061].

Cantu teaches specifically that a sender encrypts a message with the recipient's public key to "provide the recipient with assurance that the message is indeed intended for the recipient." Cantu also teaches encrypting the message with the sender's private key to "assure the recipient the identity of the sender." Cantu further discloses that such encryption techniques can be applied to barcodes [0101].

Thus, it would have obvious to one of ordinary skill in the art to incorporate Cantu's encryption techniques into Critelli's barcode system. In particular, it would have been obvious to incorporate Cantu's teaching of utilizing both a recipient's public key and a sender's private key to encrypt a barcode and to provide assurances to both the recipient and sender that the message is secure.

8> As to claims 2 and 11, Critelli and Cantu teach the public component and the private component each include a digital mail identification (Critelli, Col. 4, lines 55 - Col. 5, lines 10, Fig 8; Col. 6, lines 45-55, wherein the private identification is portions of the mailing the sender wish to include or not include within the mail piece depending upon the target audience of the specific mailing);

the public mail identification is the barcode that identifies the public component information, i.e. barcode 36, Fig 2).

9> As to claims 3 and 12, Critelli and Cantu teaches the barcode further encodes return address information (Critelli, Col. 2, lines 35-50).

10> As to claims 4 and 13, Critelli and Cantu teach the barcode further encodes information relating to the physical characteristics of the security envelope (Critelli, Col. 2, lines 35-50).

11> As to claims 5 and 14, Critelli and Cantu teach the information relating to the physical characteristics of the security envelope include at least one of:

- a. the date the security envelope was sealed (Critelli, Col. 2, lines 35-60);
- b. the size of the security envelope; and
- c. the weight of the security envelope.

12> As to claims 6 and 15, Critelli and Cantu teaches the barcode further encodes stamp information (Critelli, Col. 2, lines 35-50).

13> As to claim 7, Critelli and Cantu teach the security envelope further comprises a physical authentication identification (Critelli, Fig 8, item 18) and wherein the barcode further comprises a digital representation of the physical authentication identification (Critelli, Fig 8, item 38).

14> As to claim 10, Critelli discloses a method for securing mail, comprising:
producing a digital mail identification that encodes physical identification information of a security envelope into a barcode in a two-dimensional symbology [Col. 4, lines 10-15 | Fig. 1, item 36 | Fig 8, item 38 | column 2 «lines 35-50» where :

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Critelli disclose encoding physical information such as the date when the envelope was mailed (see Applicant's specification, pg. 9 «lines 1-2»), wherein the digital mail identification comprises:

a public component, the public component comprising a public digital mail identification and a digital signature signed by a sender and encrypted by the private key of the sender [column 2 «lines 35-50» | column 3 «lines 1-5» where : public digital mail identification can be the date when the envelope was mailed]; and

a private component, the private component comprising a private digital mail identification and a digital signature signed by the sender and encrypted by the public key a receiver [column 2 «lines 35-50» | column 3 «lines 47-66» | column 4 «lines 1-14»];

applying the digital mail identification to the security envelope [column 2 «lines 35-50»].

15> Claim 8, 9, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Critelli and Cantu, as applied to claim 1, further in view of Applicant Admitted Prior Art (hereinafter AAPA).

16> As per claim 8, Critelli and Cantu do not explicitly teach an optically clear epoxy with air bubbles suspended therein.

However, AAPA teaches the above sections in page 5 of specification. It would have been obvious to one of ordinary skill in this art at the time of invention was

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made to combine the teaching of Critelli, Cantu and AAPA because the teaching of AAPA to allow where the physical authentication identification comprises an optically clear epoxy with air bubbles suspended therein would improve the security measures for Critelli and Cantu's system by encoding additional information using another type of security technique within the barcode.

17> As per claim 9, Critelli and Cantu do not explicitly teach the physical authentication identification comprises a cloth made from non-woven 40 micron diameter polymer fibers.

However, AAPA discloses the above section in page 5 of specification. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli and Cantu and AAPA because the teaching of AAPA to allow where the physical authentication identification comprises a cloth made from non-woven 40 micron diameter polymer fibers would improve the security measures for Critelli and Cantu's system by encoding information using additional security technique within the barcode.

18> As per claims 16-17, claims 16-17 are rejected for the same reasons as rejection to claims 8-9 above respectively.

19> Claim 18-21 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Critelli and Cantu, as applied to claim 1, further in view of Moore US 5,917,925.

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20> As per claim 18, Critelli and Cantu do not explicitly teach:

measuring the physical identification information;

decoding the digital mail identification; and

comparing the measured physical identification information with the decoded digital mail identification.

However, Moore teaches the above section in the sample sections of Col. 8, lines 50-66 (“generating a unique pattern comprising an encoded input data entry stored on a mass storage device accessible by a CPU where the input data comprises...a unique mailpiece weight, and time and date information”), wherein the decoded information are compared with the pre-stored information in a database, which was measured and entered into the database at one point or another, the comparison takes place to identify the use of authentic indicia marks by unauthorized personnel, or identify the use of authorized indicia without proper fee payment or to identify improperly distributed mailpieces, or to obtain additional information on the inspected mail piece.

It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli, Cantu and Moore because the teaching of Moore to allow measuring the physical identification information; decoding the digital mail identification; comparing the measured physical identification information with the decoded digital mail identification would improve the security measures for Critelli and Cantu’s system by checking to see if the information received is the correct information pertaining to the user.

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21> As per claim 19, Critelli, Cantu and Moore teach the method as in claim 18, wherein at least one of the steps of (1) measuring the physical identification information, and (2) decoding the digital mail identification is accomplished using an optical scanner (Critelli, Col. 4, lines 15-20).

22> As per claim 20, Critelli and Cantu do not explicitly teach the step of comparing the measured physical identification information with the decoded digital mail identification is accomplished using a mobile computer.

However, Moore teaches the above section in Col. 5, lines 1-10 and Col. 26, lines 37-54, where the mobile computer is the field reader. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli, Cantu and Moore and Critelli because the teaching of Moore to allow wherein the step of comparing the measured physical identification information with the decoded digital mail identification is accomplished using a mobile computer would improve the mobility for Critelli and Cantu's system by extending this type of operation into the field carried by company workers.

23> As per claim 21, Critelli and Cantu do not explicitly teach transmitting the measured physical identification information and the decoded digital mail identification to a wired computer network via a wireless medium.

However, Moore teaches the above section on sample section of Col. 26, lines 37-56, Col. 11, lines 5-20. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli, Cantu and Moore

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because the teaching of Moore to allow transmitting the measured physical identification information and the decoded digital mail identification to a wired computer network via a wireless medium would improve the storage ability and mobility for Critelli and Cantu's system by keeping track of all the events occurring with the package scanning while in a distributed wireless environment.

24> As per claim 23, claim 23 is rejected for the same reasons as rejection to claim 1, 10, 18 above. Additionally, Critelli teaches at least one mobile computer comprising:

a bar code reader, a physical authentication identifier reader, computer capable of comparing information obtained from the bar code reader and the physical authentication identifier reader, a database capable of storing at least one public key and at least one private key, a display and a printer [Figure 4 | column 6 «lines 55-67»].

25> As per claim 24-26, claims 24-26 are rejected for the same reason as rejection to claims 2, 8-9 above respectively.

26> As per claim 27, Critelli and Cantu do not explicitly teach a wired computer network capable of communication with the at least one mobile computers via a wireless medium. However, Moore teaches a wired computer network capable of communication with the at least one mobile computers via a wireless medium (Col. 5, lines 1-15). System of Moore teaches of field readers reading information on the field and eventually interconnects with the wired system for information updates. It

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would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli, Cantu and Moore because the teaching of Moore to allow a wired computer network capable of communication with the at least one mobile computers via a wireless medium would improve mobility for Critelli and Cantu's system by keeping track of all the events occurring with the package scanning while in a distributed wireless environment.

27> Claim 18-20 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Critelli and Cantu, as applied to claim 1, further in view of Pavlidis et al, U.S Patent No. 5,504,322 ["Pavlidis"].

28> As per claim 18, Critelli and Cantu do not explicitly teach the claimed limitations. However Pavlidis discloses:

measuring the physical identification information [column 18 «lines 7-21»];
decoding the digital mail identification [column 18 «lines 7-21»] and
comparing the measured physical identification information with the decoded digital mail identification [column 18 «lines 7-21»].

Pavlidis discloses encoding physical information of an item that would allow easier identification of the particular item that matches desired physical information. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli, Cantu and Pavlidis because the teaching of Pavlidis to measure, decode and compare physical information would improve the security measures for Critelli and Cantu's system by providing a means

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for easily searching and identifying particular items (such as in a warehouse) that matches desired physical characteristics.

29> As per claim 19, Critelli, Cantu and Pavlidis teach the method as in claim 18, wherein at least one of the steps of (1) measuring the physical identification information, and (2) decoding the digital mail identification is accomplished using an optical scanner (Critelli, Col. 4, lines 15-20).

30> As per claim 20, Critelli and Cantu do not explicitly teach the step of comparing the measured physical identification information with the decoded digital mail identification is accomplished using a mobile computer.

However, Pavlidis teaches performing the comparison of the physical identification with decoded digital identification is accomplished using a mobile computer [Figure 21]. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli, Cantu and Pavlidis because utilization of a mobile computer would improve the mobility for Critelli and Cantu's system by extending this type of operation into the field carried by warehouse workers.

31> As per claim 23, claim 23 is rejected for the same reasons as rejection to claim 1, 10, 18 above.

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32> As per claim 24-26, claims 24-26 are rejected for the same reason as rejection to claims 2, 8-9 above respectively.

33> Claim 18, 19 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Critelli and Cantu, as applied to claim 1, further in view of Vaghi et al, U.S Patent No. 6,571,22 ["Vaghi"].

34> As per claim 18, Critelli and Cantu do not explicitly teach the claimed limitations. Vaghi discloses:

measuring the physical identification information [column 2 «lines 15-24» : weighing an item];

decoding the digital mail identification [abstract : weight encoded as a barcode on the package]; and

comparing the measured physical identification information with the decoded digital mail identification [column 6 «lines 11-24»].

It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli, Cantu and Vaghi because Vaghi's teaching simplifies Critelli and Cantu's shipping system by encoding physical information, such as weight of a package within a barcode which enables easier verification and checking of heavy or unusual sized packages.

35> As per claim 19, Critelli, Cantu and Moore teach the method as in claim 18, wherein at least one of the steps of (1) measuring the physical identification

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information, and (2) decoding the digital mail identification is accomplished using an optical scanner (Critelli, Col. 4, lines 15-20).

36> As per claim 23, claim 23 is rejected for the same reasons as rejection to claim 1, 10, 18 above.

37> As per claim 24-26, claims 24-26 are rejected for the same reason as rejection to claims 2, 8-9 above respectively.

38> Claims 22 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Critelli,, Cantu, Moore and in further view of 'Official Notice'.

39> As per claim 22, Critelli and Moore do not explicitly teach the method as in claim 21, wherein the wired computer network is connected to the Internet and the transmitting the identification data to a wired computer network via a wireless medium uses a TCP/IP protocol. "Official Notice" is taken that the concept and advantages of providing for TCP/IP in a wireless network is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to include wireless TCP/IP with Lewis and Moore because it would provide for a robust connection oriented transfer medium.

40> As per claim 28, claim 28 is rejected for the same reasons as rejection to claim 22 above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

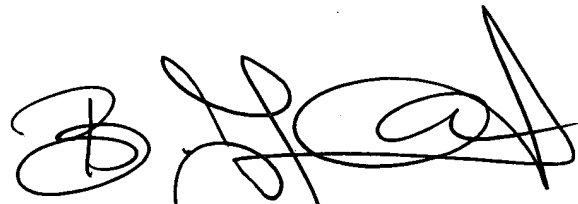
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is 571.272.3942. The examiner can normally be reached on Tuesday-Friday [7:30 AM to 4:30 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DC



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